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<223> T or S

<400> 21
Ala Val Asn Trp Xaa Ser Asn Asp Xaa Ser Asn Ser Xaa
1 5 10

<210> 22
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<220>
<221> MOD_RES
<222> (4)
<223> T or S

<220>
<221> MOD_RES
<222> (7)
<223> T or S

<220>
<221> MOD_RES
<222> (10)
<223> T or S

<400> 22
Ala Asn Asn Xaa Asn Tyr Xaa Asn Ser Xaa
1 5 10

<210> 23
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 23
Ala Asn Asn Thr Asn Tyr Thr Asn Trp Thr
1 5 10

<210> 24
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Linker

<400> 24
Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
1 5 10 15

<210> 25
<211> 35
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 25
cgcagatctg atggctggca gcctcacagg attgc 35

<210> 26
<211> 37
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 26
ccggaattcc catcactggc gacgccacag gtaggtg 37

<210> 27
<211> 35
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 27
acgcgagctc gcccctgcat ccctaaaagc ttcgg 35

<210> 28
<211> 54
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 28
gcgttgacgg cagtcagagt tgacagaagg gccagccagc aaaggatagt catg 54

<210> 29
<211> 62
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 29

ctagcatgac tatcctttgc tggctggccc ttctgtcaac tctgactgcc gtcaacgcag 60
ct 62

<210> 30
<211> 48
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 30
cctgctactg ctcccagcag cagtgaaaga gtccaaagtg gcagcatg 48

<210> 31
<211> 56
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 31
ctagcatgct gccactttgg actctttcac tgctgctggg agcagtagca ggagct 56

<210> 32
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 32
cagctggcca tgggtacccg g 21

<210> 33
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: N-terminal
peptide addition

<400> 33
Ala Asn Ile Thr
1

<210> 34
<211> 7
<212> PRT

<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: N-terminal
peptide addition

<400> 34
Ala Ser Pro Ile Asn Ala Thr
1 5

<210> 35
<211> 48
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 35
tgggcatcag gtgccaacat tacagcccgc ccctgcatcc ctaaaagc 48

<210> 36
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 36
tttactgttt tcgtaacagt tttg 24

<210> 37
<211> 48
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 37
gcaggggcgg gctgtaatgt tggcacctga tgcccacgac actgcctg 48

<210> 38
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<220>

<221> MOD_RES
<222> (1)..(13)
<223> "Xaa" represents a variable amino acid

<400> 38
Ala Xaa Asn Xaa Thr Xaa Asn Xaa Thr Xaa Asn Xaa Thr
1 5 10

<210> 39
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<220>
<221> MOD_RES
<222> (1)..(10)
<223> "Xaa" represents a variable amino acid

<400> 39
Ala Asn Xaa Thr Asn Xaa Thr Asn Xaa Thr
1 5 10

<210> 40
<211> 81
<212> DNA
<213> Artificial Sequence

<220>
<221> modified_base
<222> (1)..(81)
<223> "n" represents a, t, c, g, other or unknown

<220>
<223> Description of Artificial Sequence: Primer

<400> 40
gtgtcgtggg catcaggtgc cnnsaaydns achdnsaayd nsachdnsaa ydnsachgcc 60
cgcccctgca tccctaaaag c 81

<210> 41
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 41
ggcacctgat gcccacgaca ctgcctg 27

<210> 42
<211> 68
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<220>
<221> modified_base
<222> (1)..(68)
<223> "nnn" is a mixture of trinucleotide codons for all
natural amino acid residues, except proline

<400> 42
cgtgggcatc aggtgccaac nnnachaayn nnachaaynn nachgcccgc ccctgcatcc 60
ctaaaagc 68

<210> 43
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 43
gttggcacct gatgcccacg acactgcctg 30

<210> 44
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<220>
<221> MOD_RES
<222> (4)
<223> variable amino acid

<220>
<221> MOD_RES
<222> (12)
<223> F or L

<400> 44
Ala Phe Asn Xaa Thr Leu Asn Lys Thr Trp Asn Xaa Thr
1 5 10

<210> 45
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 45
Thr Met Asn Asn Thr Trp Asn Trp Thr Trp Asn Trp Thr
1 5 10

<210> 46
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 46
Ala Leu Asn Ser Thr Gly Asn Leu Thr Val Asp Gly Thr
1 5 10

<210> 47
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 47
Ala Ser Asn Ser Thr Phe Asn Leu Thr Glu Asn Leu Thr
1 5 10

<210> 48
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 48
Thr Arg Asn Val Thr Ile Asn Cys Thr Asn Ser Thr
1 5 10

<210> 49

<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 49
Ala Leu Asn Trp Thr Tyr Asn Gly Thr Lys Asn Val Thr
1 5 10

<210> 50
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 50
Ala Ala Asn Trp Thr Val Asn Phe Thr Gly Asn Phe Thr
1 5 10

<210> 51
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<220>
<221> MOD_RES
<222> (2)
<223> variable amino acid

<220>
<221> MOD_RES
<222> (4)
<223> variable amino acid

<400> 51
Ala Xaa Asn Xaa Thr Val Asn Ser Thr Asn Val Thr
1 5 10

<210> 52
<211> 13
<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 52
Ala Asn Asn Phe Thr Phe Asn Gly Thr Leu Asn Leu Thr
1 5 10

<210> 53
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 53
Ala Gly Asn Trp Thr Ala Asn Val Thr Val Asn Val Thr
1 5 10

<210> 54
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 54
Ala Gly Asn Ser Thr Ser Asn Val Thr Gly Asn Trp Thr
1 5 10

<210> 55
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 55
Ala Val Asn Ser Thr Met Asn Ile His Ala Ile Pro Pro
1 5 10

<210> 56
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic

peptide

<400> 56
Ala Gly Asn Gly Thr Val Asn Gly Thr Ile Asn Gly Thr
1 5 10

<210> 57
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<220>
<221> MOD_RES
<222> (8)
<223> variable amino acid

<400> 57
Ala Val Asn Ser Thr Gly Asn Xaa Thr Gly Asn Trp Thr
1 5 10

<210> 58
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 58
Ala Gly Asn Gly Thr Asn Gly Thr Ser Asn Leu Thr
1 5 10

<210> 59
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 59
Ala Met Asn Ser Thr Lys Asn Ser Thr Leu Asn Ile Thr
1 5 10

<210> 60
<211> 10
<212> PRT

<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 60
Ala Phe Asn Tyr Thr Ser Lys Asn Ser Thr
1 5 10

<210> 61
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 61
Ala Val Asn Ala Thr Met Asn Trp Thr Ala Asn Gly Thr
1 5 10

<210> 62
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 62
Ala Ser Asn Ser Thr Asn Asn Gly Thr Leu Asn Ala Thr
1 5 10

<210> 63
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 63
Ala Arg Asn Lys Thr Lys Asn Phe Thr Ile Asn Leu Thr
1 5 10

<210> 64
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 64
Ala Pro Asn Ile Thr Asn Asp Thr Val Asn Met Thr
1 5 10

<210> 65
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 65
Ala Gln Asn Lys Thr Phe Asn Phe Thr Met Asn Cys Thr
1 5 10

<210> 66
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 66
Ala Leu Asn Val Thr Trp Asn Cys Thr Leu Asn Leu Thr
1 5 10

<210> 67
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 67
Ala Leu Asn Thr Thr Trp Thr Asn Leu Thr
1 5 10

<210> 68
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 68
Ala Asn Thr Thr Asn Phe Thr Asn Glu Thr
1 5 10

<210> 69
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 69
Ala Asn Trp Thr Asn Arg Thr Asn Cys Thr
1 5 10

<210> 70
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 70
Ala Asn Trp Thr Asn Phe Thr Asn Trp Thr
1 5 10

<210> 71
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 71
Pro Thr Gly Leu Ile Gly Thr Asn Phe Thr
1 5 10

<210> 72
<211> 10
<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 72
Ala Asn Trp Thr Asn Lys Thr Asn Phe Thr
1 5 10

<210> 73
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 73
Ala Asn Asn Thr Asn Leu Thr Asn Ala Thr
1 5 10

<210> 74
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 74
Ala Asn Tyr Thr Asn Trp Thr Asn Phe Thr
1 5 10

<210> 75
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 75
Ala Asn Thr Thr Asn Gln Thr Asn Asp Thr
1 5 10

<210> 76
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic

peptide

<400> 76
Ala Asn Arg Thr Asn Trp Thr Asn Thr Thr
1 5 10

<210> 77
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 77
Pro Thr Ala Thr Asn His Thr Asn Ser Thr
1 5 10

<210> 78
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 78
Ala Asn Trp Thr Asn Gln Thr Asn Gln Thr
1 5 10

<210> 79
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 79
Ala Asn Trp Thr Asn Trp Thr Asn Ala Thr
1 5 10

<210> 80
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 80
Ala Asn Phe Thr Asn Lys Thr Asn Met Thr
1 5 10

<210> 81
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 81
Ala Asn His Thr Asn Glu Thr Asn Ala Thr
1 5 10

<210> 82
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<220>
<221> MOD_RES
<222> (3)
<223> C or W

<400> 82
Ala Asn Xaa Thr Asn Phe Thr Asn Glu Thr
1 5 10

<210> 83
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 83
Ala Asn Leu Asp Lys Leu His Lys His
1 5

<210> 84
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 84
Ala Asn Cys Phe Thr Asn Gln Thr Asn Phe Thr
1 5 10

<210> 85
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 85
Ala Asn Trp Thr Asn Trp Thr Asn Glu Trp Thr
1 5 10

<210> 86
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 86
Ala Asn Cys Thr Asn Trp Thr Asn Cys Thr
1 5 10

<210> 87
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 87
Cys His Pro Tyr Asn Trp Thr Asn Trp Thr
1 5 10

<210> 88
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 88
Ala Asn Glu Thr Asn Tyr Thr Asn Glu Thr
1 5 10

<210> 89
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 89
Ala Asn Trp Thr Asn Trp Thr
1 5

<210> 90
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 90
Ala Lys Pro Tyr Lys Ser Tyr Lys Phe Tyr
1 5 10

<210> 91
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 91
Ala Asn Ile Thr Asn Lys Thr Asn Trp Thr
1 5 10

<210> 92
<211> 10
<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
peptide

<400> 92
Ala Asn Trp Thr Asn Met Thr Asn Ile Thr
1 5 10

<210> 93
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<400> 93
Ala Asn Asn Thr Asn Arg Thr Asn Phe Thr
1 5 10

<210> 94
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<400> 94
Ala Asn Trp Thr Asn Trp Thr Asn Trp Thr
1 5 10

<210> 95
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<400> 95
Ala Asn Trp Arg Thr Asn His Thr Asn Lys Thr
1 5 10

<210> 96
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic

peptide

<400> 96
Ala Asn Gln Thr Asn Ile Thr Asn Trp Thr
1 5 10

<210> 97
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 97
Ala Asn Phe Thr Asn Val Ala Thr Asn Gln Thr
1 5 10

<210> 98
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<220>
<221> MOD_RES
<222> (1)
<223> most probable amino acid

<220>
<221> MOD_RES
<222> (2)
<223> most probable amino acid

<220>
<221> MOD_RES
<222> (5)
<223> variable amino acid

<220>
<221> MOD_RES
<222> (9)
<223> most probable amino acid

<400> 98
Ala Asn Thr Thr Xaa Leu Thr Asn Lys Thr
1 5 10

<210> 99
<211> 10

<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<220>
<221> MOD_RES
<222> (6)
<223> S or C

<400> 99
Ala Asn Lys Thr Asn Xaa Thr Asn Ile Thr
1 5 10

<210> 100
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<220>
<221> MOD_RES
<222> (9)
<223> most probable amino acid

<400> 100
Ala Asn Trp Thr Asn Cys Thr Asn Ile Thr
1 5 10

<210> 101
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<220>
<221> MOD_RES
<222> (6)
<223> F or L

<400> 101
Ala Asn Trp Thr Asn Xaa Thr Asn Trp Thr
1 5 10

<210> 102
<211> 10

<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 102
Cys Gln Leu Asp Arg Ser Thr Asn Glu Thr
1 5 10

<210> 103
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 103
Ala Asn Asn Thr Asn Tyr Thr Asn Trp Thr
1 5 10

<210> 104
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 104
Ala Asn Asn Thr Asn Tyr Thr Asn Trp Thr
1 5 10

<210> 105
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 105
Ala Ala Asn Asp Thr Asn Trp Thr Val Asn Cys Thr
1 5 10

<210> 106
<211> 13
<212> PRT

<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 106
Ala Thr Asn Ile Thr Leu Asn Tyr Thr Ala Asn Thr Thr
1 5 10

<210> 107
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 107
Ala Ala Asn Ser Thr Gly Asn Ile Thr Ile Asn Gly Thr
1 5 10

<210> 108
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 108
Ala Val Asn Trp Thr Ser Asn Asp Thr Ser Asn Ser Thr
1 5 10

<210> 109
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 109
Ala Ser Pro Ile Asn Ala Thr Ser Pro Ile Asn Ala Thr
1 5 10

<210> 110
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Linker

<400> 110
Gly Gly Gly Gly
1

<210> 111
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Linker

<400> 111
Gly Asn Ala Thr

<210> 112
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 112
Asn Ser Thr Gln Asn Ala Thr Ala
1 5

<210> 113
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 113
Ala Asn Leu Thr Val Arg Asn Leu Thr Arg Asn Val Thr Val
1 5 10